

**Amendments to the Claims:**

This listing of claims will replace all prior versions and listing of claims in the application.

**Claims**

Claims 1-43 (canceled)

Claim 44 (new): An isolated antibody generated using a peptide consisting of SEQ ID NO: 1 or SEQ ID NO: 2 as an immunogen.

Claim 45 (new): The antibody of claim 44, wherein the antibody is a monoclonal antibody.

Claim 46 (new): The antibody of claim 44, wherein the antibody is a polyclonal antibody.

Claim 47 (new): A composition comprising the antibody of claim 44 and a carrier.

Claim 48 (new): A kit for detecting the activation of KDR/Flk-1 comprising the antibody of claim 44 and reagents for a detection assay.

Claim 49 (new): The antibody of claim 44, wherein the antibody is a F(ab')<sub>2</sub>, a Fab or a single chain Fv.

Claim 50 (new): A method of generating an antibody, comprising immunizing an animal with a peptide consisting of SEQ ID NO: 1 or SEQ ID NO: 2, and isolating the antibody from the animal.

Claim 51 (new): The method of claim 50, wherein the animal is a mammal.

Claim 52 (new): An isolated antibody generated by the method of claim 50.

Claim 53 (new): An isolated antibody that binds to a peptide consisting of SEQ ID NO: 1 or SEQ ID NO: 2.

Claim 54 (new): A method for detecting the activation of KDR/Flk-1 comprising mixing the antibody of claim 44 with a biological sample and detecting a signal which indicates activation of KDR/Flk-1.

Claim 55 (new): The method of claim 54, wherein detecting the signal comprises determining the phosphorylation state of KDR/Flk-1.

Claim 56 (new): The method of claim 54, wherein the method further comprises detecting a change in activation state of KDR/Flk-1.

Claim 57 (new): The method of claim 56, wherein detecting a change in activation state comprises measuring a signal that is proportional to the proportion of Y1214 of KDR/Flk-1 in the phosphorylated or unphosphorylated state.

Claim 58 (new): The method of claim 56, wherein detecting a change in activation state comprises using NMR to follow changes in the phosphorylation state of Y1214 of KDR/Flk-1.

Claim 59 (new): The method of claim 54, wherein the biological sample is obtained from a mammal that has been dosed with a range of concentrations of a KDR/Flk-1 inhibitor and wherein the method further comprises measuring a change in activation state of KDR/Flk-1.

Claim 60 (new): The method of claim 59, wherein the method further comprises determining an effective dose of the inhibitor by calculating the effective dose of the inhibitor from the measured change in activation state of KDR/Flk-1.

Claim 61 (new): A method for detecting the presence of KDR/Flk-1 comprising mixing the antibody of claim 44 with a biological sample to detect the presence of KDR/Flk-1.

Claim 62 (new): A method for measuring the amount of KDR/Flk-1 in a sample comprising mixing the antibody of claim 44 with a biological sample and measuring the amount of KDR/Flk-1 in the sample.

Claim 63 (new): The method of claim 62, wherein measuring the amount of KDR/Flk-1 in the sample comprises performing an assay selected from the group consisting of a fluorimetric assay, a chromogenic assay, a radiolabelled assay, and a chemiluminescence assay.

Claim 64 (new): A method of determining whether a chemical compound is an inhibitor of KDR/Flk-1 comprising mixing the antibody of claim 44 with a biological sample that has been administered with the chemical compound and measuring the phosphorylation of KDR/Flk-1 in the sample.

Claim 65 (new): The method of claim 64, wherein the biological sample is obtained from a mammal.

Claim 66 (new): The method of claim 64, wherein the mammal is a human.